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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/826,312 | 04/19/2004 | Paul B. Corkum | PAT 892-2 US | 9811 |

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EXAMINER

DUPUIS, DEREK L

ART UNIT PAPER NUMBER

2883

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/826,312

Applicant(s)

CORKUM ET AL.

Examiner

Derek L. Dupuis

Art Unit

2883

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 04 December 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

Continuation of 11. does NOT place the application in condition for allowance because: applicant's arguments are not persuasive. The examiner agrees with Applicant's basic argument is that product by process limitations in general impart structure that is inherent or inferred by the process. However, with regard to the specific limitation in this case, the examiner disagrees with the applicants arguments for two reasons. First, the implied structure suggested by applicant is not inherent to the claimed process limitation. And second, given the broadest reasonable interpretation of the term "written" the examiner believes this limitation is met.

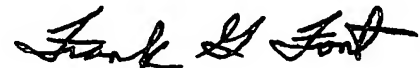
With regard to the first reason, applicant states that the limitation of being 'written' has imparted structural limitations to the product such as those listed in the last paragraph on page 6 of applicant's arguments. As described in paragraphs 30, and 43 of the specification, it is clearly FLDM laser writing and chemical etching that result in the structure that applicant has recited. These process limitations are not present in the claims and the claimed limitation of being "written" does not inherently impart these structural limitations. Applicant has made the argument that structural limitations are imparted by a specific process, and then argued that these structural limitations are inherently imparted by a significantly broader process.

With regard to the second reason, as paragraph 43 of applicant's specification shows, the term "written" can be related to many different processes such as laser writing or chemical etching. The examiner has given the term "written" its broadest reasonable meaning. The examiner believes that the waveguide in Flory is "written" since the holes/posts of the structure are "removed" or "introduced" to create defect sites (see paragraph 29-32) which creates a waveguide. More specifically, and perhaps more persuasive, US patent application serial no 09/846748 teaches in the abstract that photonic posts/holes can be made by an etch process. In applicant's own specification, (see paragraph 43), the term "written" was shown to include a chemical etch process.

Applicant also argues in pages 6 and 7 that the waveguide is not written "within" a bulk dielectric. As taught by Flory, the crystal structure can be a bulk dielectric that has a periodic lattice of air holes (instead of a periodic lattice of posts). The waveguide can be formed by omitting or removing holes (rather than the posts) along an array. Therefore, the waveguide would clearly be within the bulk dielectric. See paragraphs 27 and 30.

In pages 8 and 9, applicant argues that the dielectric posts are not a three-dimensional bulk dielectric. The examiner points to the argument addressed above. As shown by Flory, the dielectric can include holes and the removal or omission of the holes can result in a waveguide in the bulk dielectric.

DLD



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